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EXAMINER	
LUU, CUONG V	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,217	ZEIDMAN, ROBERT M.	
	Examiner	Art Unit	
	Cuong V. Luu	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17 and 18* is/are allowed.

6)☐ Claim(s) *1-16 and 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to applicant's Amendment and argument filed on October 6, 2005.

Claims 1-16, 19-24 are rejected. Claims 17-18 are allowed.

Response to Amendment

1. The amendment on Figure 6 has been considered and accepted.
2. The amendment on claims 1 and 4 have been considered and accepted.

Response to Arguments

3. Applicant's arguments, see pp 9-18, filed on 10/6/2005, with respect to the rejection(s) of claim(s) 1-24 under **35 USC § 102 and 35 USC § 103** have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Hellestrand et al (U.S. Patent 6584436 B2)**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 13-16, and 19-21 are rejected under 35 U.S.C. 102(a) as being unpatentable over Petersen et al (U.S. Patent 5307459) in view of Hellestrand et al (U.S. Patent 6584436 B2).

1. As per claim 1, Petersen et al teach a method for communicating data of an electronic device to a network comprising:

(a) receiving data packets from the network through a network interface (col. 6 lines 23-27);

(b) storing the data packets received from the network in a first buffer in memory (col. 6, lines 29-32; and Fig. 5);

(c) transmitting the data packets received from the network to through a software interface (col. 6, lines 23-27. The transceiver used to transmit data needs software to perform the data transmission);

(d) receiving data packets from an electronic device through the software interface (col. 6 lines 23-27. Again the receiver needs software to perform the task of receiving data); and

(e) transmitting the data packets received from an electronic device to the network through the network interface (col. 6 lines 23-27).

Petersen et al do not teach that communicating data is between simulation of an electronic device and a network.

Hellestrand et al teach this limitation (col. 7, lines 37-54, col. 8, lines 30-37).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al and Hellestrand et al. Hellestrand et al's teaching would have formed a co-simulation system to simulate a target processor executing the user program that provides for extreme rapid simulation of the software (col.8, lines 4-13).

2. As per claim 2, Petersen et al teach storing the data packets received from the simulation in a second buffer in memory (Fig. 5; col. 12, lines 29-38).

3. As per claim 3, the method of claim 1, wherein the first buffer comprises a receive buffer and a transmit buffer, said method further comprises:

(a) storing the data packets received from the network in the receive buffer (Fig. 5; col. 12, lines 29-38); and

(b) transferring the data packets stored in the receive buffer to the first transmit buffer (Fig. 5; col. 12, lines 29-38).

4. As per claim 4, the method of claim 2, wherein the second buffer comprises a receive buffer and a transmit buffer, said method further comprises:

storing the data packets received from the network in the receive buffer (Fig. 5; col. 12, lines 29-38); and

transferring the data packets stored in the receive buffer to the transmit buffer (Fig. 5; col. 12, lines 29-38).

5. As per claim 13, Petersen et al teach receiving data packets from the network, and the storing the data packets received from the network and the transmitting the data packets received from the network are executed in a first thread (col. 6 lines 23-27; col. 6, lines 29-32; and Fig. 5; col. 6 lines 23-27) and the receiving data packets from the simulation and the transmitting the data packets received from the simulation are executed in a second thread (col. 6 lines 23-27; col. 6 lines 23-27; Fig. 5).

6. As per claim 14, the method of claim 1, wherein the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread (col. 6 lines 23-27; col. 6, lines 29-32; and Fig. 5), the transmitting the data packets received from the network is executed in a second thread (col. 6 lines 23-27; Fig. 5), the receiving data packets from the simulation and the transmitting the data packets received from the simulation are executed in a third thread (col. 6 lines 23-27; col. 6 lines 23-27; Fig. 5).

7. As per claim 15, Petersen et al teach the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread (col. 6 lines 23-27; col. 6, lines 29-32; and Fig. 5), the transmitting the data packets received from the network is executed in a second thread (col. 6 lines 23-27; Fig. 5), the receiving data packets from the simulation is executed in a third thread (col. 6 lines 23-27), and the transmitting the data packets received from the simulation is executed in a fourth thread (col. 6 lines 23-27; Fig. 5).

8. As per claim 16, Petersen et al teach the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread (col. 6 lines 23-27; col. 6, lines 29-32; and Fig. 5), the transmitting the data packets received from the network is executed in a second thread (col. 6 lines 23-27; Fig. 5), the receiving and storing of data packets from the simulation are executed in a third thread (col. 6 lines 23-27; Fig. 5; col. 12, lines 29-38), and the transmitting the data packets received from the simulation is executed in a fourth thread (col. 6 lines 23-27; Fig. 5).

9. As per claim 19, Petersen et al teach an apparatus for connecting an electronic device to a network comprising:

(a) a computer having a memory (col. 5, lines 58-59);

(b) a first buffer in the memory (col. 6, lines 29-32; and Fig. 5); and

(c) computer instructions executable by the computer for:

receiving data packets from the network (col. 6 lines 23-27. The receiver needs instructions to perform the task of receiving data);

storing data packets received from the network in the first buffer (col. 6, lines 29-32; and Fig. 5);

transmitting the data packets received from the network to the electronic device under simulation (col. 6, lines 23-27);

receiving the data packets from the electronic device under simulation (col. 6 lines 23-27); and

transmitting the data packets received from the electronic device under simulation to the network (col. 6 lines 23-27).

10. As per claim 20, Petersen et al teach an Ethernet cable to connect the computer to the network (col. 5, lines 59-60. The examiner interprets that an Ethernet cable is needed to connect the computer to the network because the network is an Ethernet network).

11. As per claim 21, it is different to claim 1 only that a computer readable medium having computer instructions to perform in a computer. The host system is a computer. It, of course needs instructions to perform tasks in this claim, and this host has memory EEPROM and

RAM, which are computer readable medium to carry out these tasks. This claim is, therefore, rejected.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al in view of Hellestrand et al as applied to claim 1 above, and further in view of Gagne et al (U.S. Patent 5303347).

12. As per claim 5, Petersen et al and Hellestrand et al do not teach changing the size of the first buffer at run time.

However, Gagne et al teach this feature (col. 5, lines 64-68).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Gagne et al. Gagne et al's teaching of changing the size of the first buffer at run time would have helped users store different sizes of data important to the simulation of electronic devices.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al in view of Hellestrand et al as applied to claim 1 above, and further in view of Watanabe et al (U.S. Patent 5761486).

13. As per claim 7, Petersen et al and Hellestrand et al do not teach keeping a record of the data packets received from the network, the data packets transmitted to the simulation, the data packets received from the simulation; and the data packets transmitted to the network.

However, Watanabe et al teach these features (col. 6, lines 18-23).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Watanabe et al. Watanabe et al's teachings of keeping a record of the data packets received from the network, the data packets transmitted to the simulation, the data packets received from the simulation, and the data packets transmitted to the network would have provided designers information of the simulation in order to analyze and evaluate the simulation of electronic devices.

14. As per claim 8, Petersen et al and Hellestrand et al do not teach displaying the record on a screen.

However, Watanabe et al teach these features (col. 10, lines 41-46).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Watanabe et al. Watanabe et al's displaying the record on a screen would visually have provided designers information so that they could conveniently have viewed and analyzed information.

15. As per claim 9, Petersen et al and Hellestrand et al do not teach storing the record in a file.

However, Watanabe et al teach this feature (col. 6, lines 13-18).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Watanabe et al. Watanabe et al's storing the record in a file would have helped designers to store information for use later as needed.

Claim 6, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al in view of Hellestrand et al as applied to claim 1, 2, 3, and 4 above, and further in view of Lakshman (IEEE/ACM Transaction on Networking, Vol. 5, No. 3, June 1997).

16. As per claim 6, Petersen et al and Hellestrand et al do not teach discarding packets of data when the first buffer is full.

However, Lakshman teaches discarding packets when buffer is full (p. 337, col. 2, lines 21-23).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al and Lakshman. Lakshman's teaching of discarding packets when buffer is full would have helped reduce resource and time for monitoring buffer and prevent overwriting old data that are in use with new data.

17. As per claim 22, Petersen et al and Hellestrand et al do not teach discarding data packets when the second buffer is full.

However, Lakshman teaches discarding packets when buffer is full (p. 337, col. 2, lines 21-23).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Lakshman. Lakshman's teaching of discarding packets when buffer is full would have helped reduce resource and time for monitoring buffer and prevent overwriting old data that are in use with new data.

18. As per claim 23, Petersen et al and Hellestrand et al do not teach discarding data packets when either one of the receive buffer and the transmit buffer is full.

However, Lakshman teaches discarding packets when buffer is full (p. 337, col. 2, lines 21-23).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Lakshman. Lakshman's teaching of discarding packets

when buffer is full would have helped reduce resource and time for monitoring buffer and prevent overwriting old data that are in use with new data.

19. As per claim 24, Petersen et al and Hellestrand et al do not teach discarding data packets when either one of the receive buffer and the transmit buffer is full.

However, Lakshman teaches discarding packets when buffer is full (p. 337, col. 2, lines 21-23).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Lakshman. Lakshman's teaching of discarding packets when buffer is full would have helped reduce resource and time for monitoring buffer and prevent overwriting old data that are in use with new data.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al in view of Hellestrand et al as applied to claim 1 above, and further in view of Chu et al (ACM, 0-89791-089-3/83/0300-0170, 1983).

20. As per claim 10, Petersen et al and Hellestrand et al do not teach recording the throughput of the data packets.

However, Chu et al teach this feature (p. 171, col. 2, paragraph 5, lines 1-6).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Chu et al. Chu et al's teaching of recording the throughput of the data packets would have provided designers performance statistics of devices under simulation to make decisions about modification, re-design, or adjustment regarding the those devices.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al in view of Hellestrand et al as applied to claim 1 above, and further in view of Nicol (U.S. Patent 6757367B1).

21. As per claim 11, Petersen et al and Hellestrand et al do not teach modifying the packets.

However, Nicol teaches this feature (col. 24, lines 35-39).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Nicol. Nicol's teaching of modifying the packets would have made packets suitable for receipt by the simulation.

22. As per claim 12, Petersen et al and Hellestrand et al do not teach modifying includes removing a preamble from a data packet.

However, Nicol teaches this feature (col. 24, lines 35-39).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Petersen et al, Hellestrand et al, and Nicol. Nicol's teaching of modifying includes removing a preamble from a data packet would have made packets suitable for receipt by the simulation.

Allowable Subject Matter

Claims 17-18 are allowed.

23. As per claim 17, it is allowed because of following features that have not been found in searching of prior art's teachings:

(c) transmitting back the data packet received by the second computer to the first computer;

(d) comparing the data packet received by the first computer with the data packet that was sent by the first computer; and

(e) reporting an error if the data packet received by the first computer does not match the data packet that was sent by the first computer.

24. As per claim 18, it is allowed because of following features that have not been found in searching of prior art's teachings:

(d) at the second computer, transmitting the data stored in the first buffer to a third computer;

(e) at the third computer, transmitting back the data packet received to the second computer;

(f) at the second computer, transmitting the data received from the third computer to the first computer;

(g) at the first computer, comparing the data packet received with the data packet that was sent; and

(h) reporting an error if the data packet received by the first computer does not match the data packet sent by the first computer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cuong V. Luu whose telephone number is 571-272-8572. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah, can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. An inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CVL

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